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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/978,602

10/16/2001

Howard L. Vandersall

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12/17/2002

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,602

Applicant(s)

VANDERSALL ET AL

Examiner

Cephia D Toomer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 79 is/are allowed.
- 6) ☐ Claim(s) 1-78 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other

DETAILED ACTION

Specification

1 The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

2 The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3 Claims 1, 3, 5, 6, 9, 13-18, 22, 41, 42, 44, 46, 47, 53-58 and 62 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-48 of copending Application No. 09/978,401.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the composition of the present invention encompasses that of 09/978,401. Each invention is directed to a fire retardant composition and both invention contains an ammonium polyphosphate fire retardant and a biopolymer having a particle size diameter less than about 100 microns.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-3, 6-7, 16, 22-24, 26, 30, 32, 35, 41-44, 46, 47, 55, 62-64, 66, 67, 69 and 72, the language "selected from a group" is improper Markush language.

In claims 1, 22, 23, 41, 42, 62 and 63, and it is not clear how ferric pyrophosphate and ferric orthophosphate can be soluble and insoluble. It is known that soluble ferric pyrophosphate is a combination of ferric pyrophosphate and sodium citrate; however, it is not clear from the claims or the specification if this is the compound that Applicant is claiming. Also, it is not clear in what environment or solvent these compounds are soluble or insoluble, e.g., water, alcohol, acid, etc. It is also known that ferric pyrophosphate is insoluble in water but soluble in dilute acid. However, given that Applicant is claiming a composition wherein neither water or acid is present, it is difficult to ascertain what Applicant is claiming with respect to these soluble and insoluble.

In claims 3, 22, 26, 44, 62, and 66, it is not clear how these additional corrosion inhibitors differ from those present in the corrosion inhibiting system.

Claim 5 is rejected because there is no antecedent support in claim 1 for a coloring agent.

Claims 5, 30, 46 are rejected because it is not clear what constitutes "highly colored agents."

Claims 7, 25, 48 and 65 are rejected because it is not clear if insoluble and soluble refers to water, hydrocarbon solvent, alcohol, acid, etc. Clarification is required.

Claim 8 is rejected because it is not clear what "in concentrate" means.

In claims 24, and 43, "dimercaptomthiadiazole" is misspelled.

In claim 61, the language "applying a fire suppressing composition " appears twice in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6, 8-18, 22-24, 26-37, 41-47, 49-48, 62-64, 66-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 3,730,890) in view of Crouch (US 6, 019,176) and Strickland (US 4,822,524)

Nelson teaches a fire retardant composition comprising attapulgite clay, liquid ammonium polyphosphate, corrosion inhibitors and coloring agents (see abstract: col. 2.

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lines 17-26). The composition is prepared as a concentrate and diluted with water to produce the required fire retardant. The composition maybe applied by aerial means (see abstract: col. 1, line 69 through col. 2, lines 1-5). The corrosion inhibitor is preferably used in an amount from about 0.05 to about 0.5 part by wt.; however, Nelson teaches that depending upon the specific inhibitor the amount may vary (see col. 2, lines 43-51). Nelson teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Nelson differs from the claims in that he does not specifically teach the claimed corrosion inhibitor (claims 2, 24, 43). However, Crouch teaches this difference.

Crouch teaches that the corrosion inhibitors taught by Nelson (sodium silicofluoride) is an art recognized equivalent of the claimed azole compounds (see col. 3, lines 18-25).

It would have been obvious to one of ordinary skill in the art to have selected the claimed azole corrosion inhibitors because Crouch teaches that they are art recognized equivalents of the corrosion inhibitor taught by Nelson, sodium silicofluoride.

In the second aspect, Nelson and Crouch differ from the claims in that they do not specifically teach the corrosivity of the corrosion inhibitors (claims 4, 8, 22, 27, 28, 29, 41, 45, 49, and 62). However, no unobviousness is seen in this difference because Nelson and Crouch teach that the corrosion inhibitor is present in the composition in a range that is encompassed by the disclosed range. Therefore, it would be reasonable

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to expect that the corrosivity of the corrosion inhibitors would be within the claimed corrosivity range

Nelson and Crouch fail to teach that the composition contains xanthan as the biopolymer. However, Strickland teaches that xanthan is added to fire-retardant compositions (see abstract).

It would have been obvious to one of ordinary skill in the art to have included xanthan in the fire retardant composition because Strickland teaches that xanthan gum is included in these composition to improve the stability, corrosivity or adhesion of the composition.

Claims 1-6, 8-18, 22, -24, 26-29, 41-47, 49-58, 62-64, and 66-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent 693304.

EP teaches a fire retardant composition for aerial application comprising color agents, ammonium polyphosphate, attapulgite clay, stabilizers and corrosion inhibitors, such as mercaptobenzothiazole and dimercaptothiadiaazole (see page 2, lines 33-34, 38, 42-58; Table F), wherein the azole corrosion inhibitors are present in the composition in a total amount of 1.02% (dry conc), 0.48% (liq. conc.) and 0.11% (final mix). The dry concentrate is diluted with water to obtain the final composition (see page 3, lines 27-30, 42-43).

EP teaches the limitations of the claims other than that it does not specifically teach the corrosivity of the corrosion inhibitors (claims 4, 8, 22, 27, 28, 29, 41, 45, 49, and 62). However, no unobviousness is seen in this difference because teaches that the corrosion inhibitor is present in the composition in a range that is encompassed by

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the disclosed range. Therefore, it would be reasonable to expect that the corrosivity of the corrosion inhibitors would be within the claimed corrosivity range.

Nelson and Crouch fail to teach that the composition contains xanthan as the biopolymer. However, Strickland teaches that xanthan is added to fire-retardant compositions (see abstract).

It would have been obvious to one of ordinary skill in the art to have included xanthan in the fire retardant composition because Strickland teaches that xanthan gum is included in these composition to improve the stability, corrosivity or adhesion of the composition.

Claim 79 is allowable because the prior art fails to teach or suggest a method of inhibiting corrosion on a corrodible material comprising contacting the material with xanthan and ferric pyrophosphate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9310 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661

C. Michael Toomer
CEPHIA D. TOOMER
PRIMARY EXAMINER
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